Family Cepolidae

The Band Fishes

Body very elongated, well compressed, with long, tapering tail. Head small. Snout short. Eye large, well advanced in head. Mouth wide, inclined. Maxillary expanded behind, extends below eye. Teeth unequal, more in upper moderate, ~~so~~ jaws. Preopercle convex. Gill openings wide. Gills 4. Pseudobranchiae present. Air bladder large. Pyloric coeca few. Skull well ossified. Scales cycloid, small, cover most of head and body but not on fins. Lateral line incomplete. Dorsal and anal fins with long bases, formed of slender rays, either branched or simple, or more or less articulated; caudal more or less continuous with dorsal and anal.

1 example. Estero, Sablayan Bay, Mindoro. December 13, 1908. Length 78 mm.

17000 and 17006. Galvaney Island, Ragay Gulf, Luzon. March 9, 1909. Length 129 to 130 mm.

A477. Isabela River, Basilan Island. September 11, 1907. 2 examples. Length 205 mm.

7892. Marinduque River, Marinduque. January 30, 1908. Length 172 mm.

9637. Lato River, Luzon tidal. June 18, 1909. Length 200 mm.

5349. Lomocan River, Camp Overton, Mindanao. August 6, 1909. Length 87 mm.

7941. Tayabas Bay, Luzon. February 20, 1909. Length 250 mm.

11429 and 11435 [1094]. Pucot River, Marivales. January 29, 1909. Length 63 to 108 mm.

8694, 8695, 8703. San Miguel Island. June 4, 1909. Length 323 to 377 mm.

Pectoral short, low, broad. Ventral thoracic.

Small shore fishes of long, compressed form, more or less band like. Their color is usually with deep red. Found in the Mediterranean and the Indo-Pacific. "The Band-fishes are aberrant Serranidae (Regan 1913), perhaps most nearly related to the Branchiostegidae."

Analysis of Genera

a.' Preopercle entire; scales not imbricated, head wholly naked. Cepola.

a.² Preopercle strongly spinate or denticulate; scales imbricated; head partly scaly. Acanthocepola.

8937. Atulayan Island. Leyte Gulf.
June 18, 1909. Length 225 mm.

4 examples. Below mouth of Mindanao River, Cotabato, Mindanao, May 20, 1908. Length 37 to 58 mm. The 2 large approach somewhat the pattern of color of Trigamus concatenatus, though the smaller are distinctly vermiculated.

12 examples. Bagacong River, 4 miles from mouth, Sablayan Bay, Mindoro. December 13, 1908. Length 28 to 47 mm.

19106 to 19108, 19110. Buena Vista, Guimaras Island. January 14, 1909. Length 90 to 109 mm.

1 example. Cotabato, below mouth of Mindanao River, Mindanao. May 20, 1908. Length 55 mm.

5846. Casamahala Bay, Ragay Gulf. March 11, 1909. Length 150 mm.

12814. Cavite and Van Royne markets. June 27, 1908. Length 148 mm.

Genus Cepola Linnaeus

~~Cepola~~ Cepola ~~Linnaeus~~ Linnaeus, Syst. Nat., ed. 10, p. 445, 1758. (Type Cepola taenia Linnaeus, monotypic.)

Long, slender body equally deep as head. Head obtuse, compressed. Snout short, obtuse. Eye ~~large~~ lateral, ~~advanced~~ elevated or close to upper front profile. Maxillary large. Teeth conic, simple, uniserial; anterior strong and curved graduated smaller posteriorly in jaws, none on palate. Preopercle edge entire. Gill membranes scarcely joined below isthmus. Gill rakers long, rather stout, moderate. Branchiostegals 6. Pyloric caeca 8. Scales small, not imbricated, deeply imbedded. Vertebrae 69, of which 54 caudal. Dorsal and anal long, more or less

Operculum with small, concealed spine. Head naked.

Siganus koptii (Bleeker).

Amphacanthus koptii Bleeker, Nat. Tijds. Ned. Indië, deel 2, 1851, p. (472) 483. Rio; l.c., deel 3, 1852, p. 448 (Bunkau), p. 546 (Amboina); l.c., deel 12, 1856, p. 215 (Mian).

Teuthis koptii Bleeker, Verslag en Abhand. Akad. Wet. Amsterdam, deel 2, reeks 2, 1868, p. 291 (Rio, Bintang).

Depth 2 2/3. Caudal truncate. Reddish green above, silvery yellowish below. Back and sides with silver or yellow spots. Fins greenish, spines blackish; rays variegated chestnut. Caudal brown. Length 145 mm. (Bleeker.)

Possibly not different from Siganus concatenatus.

~~fond~~ with rays 5 ~~7~~ to 82, ~~latter 57~~

confluent with caudal, which
dorsal rays 57 to 82; anal rays 48 to 79.
long and narrow; Pectoral
rays 12 to 16.
low, short, Ventral thoracic,
below pectoral base, with spine
and 5 rays.

Eastern Atlantic, Mediterranean,
Indo-Pacific.

Cepola aotea Waite

Cepola aotea Waite, Proc.
New Zealand Inst., vol. , p. 26,
1910 (type locality,
Rec. Canterbury Mus., vol. 1, no. 4,
p. 319, dec. 28, 1912 (reference).

Cepola schlegeli Bleeker

Cepola schlegeli Bleeker, Nat. Tijds. Ned. Indie, vol. 6, p. 412, 1854 (type locality, Kaminoseki, Japan); Verh. Batavia. Genoot., (Jap.), vol. 26, p. 110, 1854 (Japan); Act. Soc. Sci. Ind. Neerl., vol. 6, p. 256, 1859 (Japan).

— Günther, Cat. Fish. Brit. Mus., vol. 3, p. 488, 1861 (copied). — Bleeker, Verh. Kon. Akad. Wet. Amsterdam, vol. 18, p. 18, 1879.
— Steindachner and Döderlein, Denks. Akad. Wiss. Wien, Math.-naturw. Kl., vol. , p. 12, 1887

— Ishikawa, Cat. Fish. Mus. Tokyo, p. 32, 1897. — Ogilby, Proc. Linn. Soc. New South Wales, pt. 1, p. 183, April 26, 1899 (reference in key).

darker at tip. Pectoral grayish white. Ventral yellowish white, spines drab. Iris yellow.

6438. Tilig, Lubang. July 14, 1908. Length 335 mm.

7959. Taytayan Bay, Palawan. December 28, 1908. Length 318 mm.

6664 and 6665. Varadero Bay, Mindoro. July 23, 1908. Length 222 to 227 mm.

5049. Vandaloan, Borneo. February 29, 1908. Length 225 mm.

12042 and 20395. Vandaloan. March 2, 1908. Length 84 to 147 mm.

A938. Dodepio and Pasijogo Islands, Dutch East Indies. November 16, 1909. Length 255 mm.

A936 and A936. Pasijogo Islands. November 16, 1909. Length 258 to 265 mm.

A870. Limbe Strait, Celebes. November 10, 1909. Length 320 mm.

— Jordan and Snyder, Annot. Zool. Japon., vol. 3, p. 111, 1901 (reference).

— Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 700, 1903 (copied). — Jordan, Tanaka, Snyder, Journ. College Sci. Tokio, vol. 33, p. 191, 1913 (reference).

— Izuka and Imatsumura, Cat. Zool. Spec. Mus. Tokyo, Vert., p. 144, 1920 (Briga).

A1229. Homonno Island. December 3, 1909. Length 305 mm.

5716. Surigao, Mindanao. May 8, 1908. Length 328 mm.

7841. Jagnaya Island. January 7, 1909. Length 235 mm.

4923. Tataan, Mindoro Island. February 20, 1908. Length 240 mm. Generally azure blue; everywhere with orange spots slightly smaller than pupil. Belly and under surface drab. Large orange spot just below and before soft dorsal axil. Reticulating blue lines on nuchal region round over preopercle, cheek, snout and top of head with smaller blue dots. Spinous dorsal pale lemon yellow and soft dorsal with blush rays, membranes pale red. Spinous anal like spinous dorsal. Anal with blue rays, membranes with orange wash. Caudal pale blue,

Cepola rubescens schlegelii Ogilby, Proc. Linn. Soc. New South Wales, pt. 1, p. 185, April 26, 1899 (reference).

Depth 1/2; head 1/0, width 1 2/3 in its depth. Snout half length of eye, its profile convex; eye 3 in head; maxillary oblique, reaches below hind part of eye; teeth in jaws uniserial, curved, conic; opercle little over 3 in head; preopercle without spines (in young sharp pointed spines are developed).

Scales very small, over 300 in a lateral series. Lateral line concurrent with back. Opercle scaly.

D. more than 70; A. more than 60; vertical fins confluent; pectoral rays 18, fin rounded, 1 2/3 to 1 3/4 in head; ventral rays $\overline{\text{I}}, 5$.

Body and fins rosy. Membrane

between premaxillary and
maxillary with a black spot.
Length 2 1/2 mm. (Bleeker.)

Japan: Young also said
to have body much shorter and
deeper in comparison with
the length of the head.

Cepola macrophthalmus (Linnaeus)

Ophidion macrophthalmum Linnaeus, Syst. Nat., ed. 10, pt. 1, p. 259, 1758 (type locality, "in M. Mediterraneo").

Cepola macrophthalmus Quilby, Proc. Linn. Soc. New South Wales, pt. 1, p. (183) 185, April 26, 1899 (reference).

Cepola rubescens Linnaeus, Syst. Nat., ed. 12, p. 445, 1766 (type locality, "in mari Mediterraneo"). — Bonnaterre, (Schtt. Tabl.), p. 57; pl. 33, fig. 124, 1788 (copied). — Gmelin, Syst. Nat. Linn., vol. 1, p. 1187, 1788 (copied). — Walbaum, Artedi Pesc., vol. 3, p. 616, 1792 (copied). — Schneider, Syst. Schtt. Bloch, p. 241, 1801 (copied). — Swainson, Nat. Hist. Animals, vol. 2, p. 397, 1839 (Britain; Sicily). — Valenciennes, Hist. Nat. Poiss., vol. 10, p. 388; pl. 300, 1835 (Mediterranean). — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 486 (English coast, Devonshire, Kingsbridge, Teignmouth, Great Britain, Elba, Bay of Naples, Dalmatia, Scotland).

72699. U.S.N.M. Java. Messrs. Bryant and Palmer. Length 80 mm. As Trigonus coralliensis.

75906. U.S.N.M. Borneo. H.C. Raven. Length 287 mm.

84209. U.S.N.M. Philippines. Dr. Fred Baker. Length 130 mm.

Cepola taenia Linnaeus, Syst. Nat., ed. 10, p. 445, 1758 (type locality, "in M. Mediterraneo"). — Bloch, Nat. Ausl. Fische, vol. 11, p. 126, pl. 170, 1786 (Mediterranean Sea).

Cepola serpentiformis Lacépède, Hist. Nat. Poiss., vol. 2, pp. 525, 529, 1800 (type locality, Mediterranean).

Cepola marginata Rafinesque, Car. Nouv. Animal. Sicilia, p. 56, pl. 16, fig. 4, 1810 (type locality, Sicily).

Cepola longicauda Swainson, Nat. Hist. Animals, vol. 2, p. 399, 1839 (type locality, Britain; Bay of Naples).

30563. U.S.N.M. New Guinea. Australian Museum. Length 233 mm.

52043. U.S.N.M. Negros Island, Philippines. Dr. Bashford Dean. Length 208 mm. As Nigamus lineolatus.

55952. U.S.N.M. Bulan, Philippines. Length 258 mm. (4056 B.F.). Philippine Commission. As Nigamus lineatus.

58053. U.S.N.M. Zamboanga, Philippines. Dr. E.A. Mearns. 2 examples. Length 200 to 232 mm. As Nigamus vermiculatus.

71685. U.S.N.M. Naha, Okinawa, Riu Kiu Islands. 2 examples. Albatross Collection 1906. Length 120 to 123 mm.

72267. U.S.N.M. Aparri, Philippines. R.C. Mac Gregor. Length 85 mm. As Nigamus lineatus.

72700. U.S.N.M. Java. Messrs. Bryant and Palmer. Length 230 mm. As Nigamus guttatus.

Cepola rovemradiata Swainson, op. cit., p. 399, fig. 127c (caudal), 1839 (type locality, Sicilian Sea).

Cepola attenuata Swainson, op. cit., p. 400, fig. 127d (caudal), 1839 (type locality, coasts of Sicily).

Cepola truncata Swainson, op. cit., p. 400, fig. 127f. (caudal), 1839 (type locality, coast of Palermo).

Cepola gigas Swainson, op. cit., p. 401, 1839 (type locality, not given).

Cepola jugularis Swainson, op. cit., p. 401, fig. 127a (caudal), 1839 (type locality, near Nice).

Cepola australis Ogilby

Cepola australis Ogilby, Proc. Linn. Soc. New South Wales, vol. 24, p. 184, Aug. 1899 (type locality, Port Jackson, New South Wales).

— McCulloch, Austral. Mus. Mem., No. 5, pt. 2, p. 255, Sep. 10, 1929 (reference).

Depth 11 $\frac{3}{5}$ in total length; head 9, snout obtuse, rounded, shorter than eye; eye 3 $\frac{1}{3}$ in head; maxillary reaches $\frac{1}{2}$ in eye, expansion over $\frac{1}{2}$ in eye, length 2 $\frac{1}{4}$ in head from snout tip; upper front teeth strong, hooked inwards and backwards, numerous lateral teeth decreasing in size posteriorly; lower teeth graduated larger posteriorly, the series ending in a strong, curved canine; supplementary series of 4 pair of strong teeth on outer edge of lower lip anteriorly; interorbital 6 $\frac{1}{3}$ in head, flat; preopercle rounded. Gill rakers 16+21, length $\frac{5}{8}$ of eye.

Scales ctenoid. Lateral line ends below twenty-sixth dorsal ray.

D. 57; origin over opercle,

highest at anterior third or fin height less than ½ of head, D. 48, origin below eighth dorsal ray; caudal rays 9, middle ray 1½ in head, acutely pointed; pectoral rays 16, fin shorter than ventrals.

Body and fins bright red, middle of sides with some angular yellow bars. No intermaxillary or dorsal spots. Length 260 mm. (Ogilby.)

New South Wales.

Genus Acanthocepola Bleeker

Acanthocepola Bleeker, Verslag. Kon. Akad. Wet. Amsterdam, vol. 8, p. 369, 1874. (Type Cepola krusensternii Schlegel, monotypic.)

Preopercle with 4 to 8 spines on its lower margin. Dorsal and anal rays simple and indistinctly articulate.

caudal mottled with brown, latter with 4 or 5 dark blotches along each outer edge above and below and brown band at base of fin.

8810, 8812, 21671, 21672. Santiago River, Pagapas Bay, Luzon. February 20, 1909. Length 90 to 106 mm.

4888. Siasi Island. February 16, 1908. Length 310 mm. Ground color slate gray, more bluish on back, olive slate on forehead. Side of head brassy yellow, ground color showing as indigo stripes and spots; narrow stripe from front of eye half way to preorbital edge, another beneath near lower preorbital edge to angle; third somewhat parallel rises near upper opercle edge and extends irregularly and obliquely to lower corner of mouth; below 3 round spots on middle of cheek; branch from last line extends downward

Analysis of Species

a.' Acanthocepola ~~new subgenus~~.
No blackish blotch on front of dorsal; ~~head 6 to 7½~~; scales 165 to 175.

b.' Head 6 to 7½; D. 68 to 74; A. 70 to 74. abbreviata.

b.² Head 8 to 11¼; D. 80 to 92; A. 75 to 92. krusensterni.

a.² Stigmacepola new subgenus (Gr. stigma blotch + Cepola). Blackish blotch on front of dorsal; scales 300; head 12; D. 104; A. 105. limbata.
(Cepola l. Val.)

Acanthocepola abbreviata (Valenciennes)

Cepola abbreviata Valenciennes, Hist. nat. Poiss., vol. 10, p. ~~798~~ 403, 1835 (type locality, "archipel des Moluques"; Anjer → Java fide Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, p. 1160, 1849 (1850) (Sea of Penang). — Bleeker, Act. Soc. Sci. Ind. Néerl. (Sumatra), vol. 3, p. 38, 1858 ( ); vol. 8 (Sumatra), p. 44, 1860 ( ); Verslag. Kon. Akad. Wet., vol. 12, ~~1861~~, p. 58, 1861 ( ); p. 77 ( ), ~~Ned. Tijds. Dierk., vol. 4, p. 134, 1873.~~ — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 488, 1861 (Sea of Penang). — Bleeker, Ned. Tijds. Dierk., vol. 4, p. 134, 1873 (reference). — Day, Fishes of India, pt. 2, p. 324, pl. 68, fig. 4, 1876; Fauna British India, Fishes, vol. 2, p. 330, fig. 109, 1889.

Acanthocepola abbreviata Weber, Siboga Exped., vol. 57, Fische, p. 266, 1913 (Salayer).

— Herre, Philippine Journ. Sci., vol. 34, no. 3, p. 282, pl., ~~p. 20~~ Nov. 1927 (Manila Bay).

Cepola variegata Swainson, Nat. Hist. Animals, vol. 2, p. 402, 1839 (type locality, China).

Depth 7 1/3; head 7 1/2. Snout 5 2/3 in head from snout tip; eye 2 2/3 3, greater than snout; maxillary reaches 3/5 in eye, expansion 2, length 1 7/8 in head from snout tip; teeth uniserial in jaws; preopercle with strong spine at angle, 3 or 4 more along lower limb, often variable on 2 sides of same fish; interorbital very low.

Scales 165 to 175 in a longitudinal series; 145 in lateral line. Preopercle and opercle scaly.

D. 68 to 72, fin height 1 3/4 in head; A. ~~170~~ 165 to ~~174~~ 175, fin height 1 7/8; caudal 1 1/8, ends in point behind, rays 13; pectoral 1 1/4 to 1 1/3; ventral 1 2/5, ends in a filamentous tip.

Reddish, merging into brilliant deep red on dorsal, anal and caudal, paler on head. Belly whitish. Series of yellow or orange crossbands on body, broken into elongate spots anteriorly. Head and lateral line with brilliant silver luster. Anal and caudal with black marginal line. Length 190 mm. (Herre.)

India, Malaya, East Indies, Philippines, China.

Acanthocepola krusensterni (Schlegel)

Cepola krusensterni Schlegel, Fauna Japonica, Poiss., pts. 7–9, p. 130, 1845 (not figure) (type locality, Nagasaki Bay, ~~Nagasaki Japan~~).

— Richardson, Ichth. China and Japan, p. 277, 1846 (reference).

— Bleeker, ~~Journal~~ Nat. Tydw. Ned. Indie, vol. 6, p. 411, 1854 ( );
Verh. Batavia. Genoot. (Jap.), vol. 28, p. 39, 1854 ( ); vol. 26 (Jap.), p. 108, 185 ( ); Act. Soc. Sci. Ind. Neerl. (Jap.), vol. 3, pl. 2, fig. 1, 1859.

— Günther, Cat. Fish. Brit. Mus., vol. 3, p. 488, 1861 (Japan).

— Steindachner and Döderlein, Denksc. Kaisad. Wiss. Wien, ~~Math~~ Math.-naturw. Kl., vol. , p. 32, 1887.

10515. Port Jamelo, Luzon. July 13, 1908. Length 195 mm.

7013 and 7014. Port San Pio Quinto, Camaguin Island. November 10, 1908. Length 382 to 423 mm.

7325. Pucot River, Mariveles. January 29, 1909. Length 62 mm.

8776. Rapu Rapu Island and Strait. June 22, 1909. Length 384 mm.

5273 and 5274. Romblon Harbor. March 25, 1908. Length 332 to 373 mm.

8696 and 8706. San Miguel Island. June 4, 1909. Length 267 to 300 mm.

20327. San Pascual, Burias Island. March 8, 1909. Length 113 mm.

2 examples. San Pascual, tide-pool. March 8, 1909. Four broad bands across lower surface of head and broader one across chest. Body also blotched and speckled with whitish. Spinous dorsal, anal and

— Ishikawa, Cat. Fish. Imus. Tokyo, p. 32, 1897.

Acanthocepola krusensterni Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 701, 1903 (Tokyo, Misaki, Wakanoura, Kuamichi, Nagasaki, Moji, Obama). — Jordan, Tanaka, Snyder, Journ. College Sci. Tokio, vol. 33, p. 190, 1913 (reference). [— Izuka and Matsuura, Cat. Zool. Spec. Tokyo Mus., Vert., p. 144, 1928 (Amakusa). — Seale, Philippine Journ. Sci., vol. D, 9, p. 69, 1914 (Hongkong).] — Herre, Philippine Journ. Sci., vol. 34, Nov. p. 283, 1927 (Manila Bay; Puerto Galera, Mindoro; Hong Kong).

— Fowler, Proc. Acad. Nat. Sci. Philadelphia, vol. 81, p. 615, 1929 (Hong Kong).

1 example. Mouth Mindanao River, vicinity, Cotabato, Mindanao. May 20, 1908. Length 38 mm.

9043. Tabatas Point, Samar. July 24, 1909. Length 260 mm.

21716. Jolo River, tidal. June 18, 1909. Length 40 mm.

7939. Pagupan Bay, Luzon. February 20, 1909. Length 250 mm.

5922. Parang, Mindanao. May 23, 1908. Length 235 mm.

~~A786 and A937. Pasey Jolo Islands. November 16, 1909. Length 258 to 265 mm.~~

8187. Port Busin Island. March 8, 1909. Length 298 mm.

8389. Port Olutan, Leyte. March 17, 1909. Length 275 mm.

7999. Port Banalacan, Marinduque Island. February 23, 1909. Length 332 mm.

Cepola kuangta Richardson, Ichth. China and Japan, p. 277, 1846 (type locality, Canton).

dark bronze spots. Yellow bronze blotch below hind part of dorsal in front of caudal peduncle, appears bright yellow as viewed from above as fish is in water.

5848, 8275, 18502, 21849 to 21850. Caunahala Bay, Ragay Gulf, Luzon. March 11, 1909. Length 90 to 208 mm.

21818. Cebu market. March 20, 1909. Length 50 mm.

A 1518. Daisy Inlet, Sumbum Island. June 6, 1910. Length 356 mm.

7559. Endeavor Strait, Malampaya Sound, Palawan Island. December 23, 1908. Spots bronze, fading to orange. Lines on head slate. Blotch below dorsal axil golden.

7492. Endeavor Strait. December 18, 1908. Length 295 mm.

2 examples. Estero, Sablayan Bay, Mindoro. December 13, 1908. Length 43 to 67 mm.

depth 8 1/2 to 13 2/3; head 9 to 11 1/4. Snout 4 to 4 1/2 in head; eye 2 4/5 to 3 1/2, greater than snout or interorbital; maxillary reaches 1/2 to 3/4 in eye, expansion 1 1/2; lower preopercle edge with 4 or 5 blunt, broad spines; interorbital 4 to 4 1/2 in head from snout tip, low, flattened.

Scales 160 to 170 in lateral line, 28 vertically in front. Opercle and preopercle scaly.

D. 80 to 92, inserted above upper angle of gill opening; A. 75 to 80, ~~caudal~~ origin opposite ninth or tenth dorsal ray; caudal rays 14, ends in 1/2 point behind; pectoral 1 1/3 in head; ventral 1 2/5 to 1 3/5.

Red in life, anal and to salmon fins

caudal narrowly margined
with black. Fade pale brown
in alcohol.

Japan, China.

A. M. N. P., one example. Hong Kong.
April 1929. Henry W. Fowler.
Length 190 mm.

Acanthocepola limbata (Valenciennes)

Cepola limbata Valenciennes, Hist. Nat. Poiss., vol. 10, p. 402, ~~pl. 60, fig. 2~~, 1835 (~~type locality~~, on Krusenstern, pl. 60, fig. 2) (type locality, Japan).
— Richardson, Ichth. China and Japan, p. 277, 1846 (reference). — Günther, Cat. Fish. Brit. Mus., vol. 3, p. 489, 1861 (copied). — Lyström, Bih. Kon. Svensk. Vet. Ak. Handl., Stockholm, vol. 13, af. 4, no. 4, p. 39, 1887 (Nagasaki).

Acanthocepola limbata Jordan and Fowler, Proc. U. S. Nat. Mus., vol. 26, p. 702, fig., 1903 (Giran, Formosa). — Jordan, Tanaka, Snyder, Journ. College Sci. Tokio, vol. 33, p. 190, fig. 140, 1913 (reference). — Izuka and Matsuura, Cat. Zool. Spec. Mus. Tokyo, Vert., p. 144, 1920 (Misaki). — Barnard, Ann. South. African Mus., vol. 21, pt. 2, p. 503, Oct. 1927 (Delagoa Bay).

7463. Bolalo Bay, December 21, 1908.

Length 264 mm.

20316 and 20317. Bolinao Bay, May 10, 1909.

Length 132 to 141 mm.

19109. Buena Vista, Guimaras Island.

January 14, 1909. Length 85 mm.

15694. Busuu Harbor, Burias Island.

March 8, 1909. Length 203 mm.

5624. Busuu Harbor. April 22, 1908.

Length 248 mm.

21697. Cabugao Bay, Catanduanes Island.

June 9, 1909. Length 58 mm.

5514. Catbalogan, Samar. April 15, 1908.

Length 245 mm. Back and top of head slaty, umber below posteriorly. Very pale slaty shades on chin and throat, merged between. Side of head bronze umber with slate stripes and spots. 7 pinnae vertical fins bronze, soft vertical fins smoky purplish with very

Cepola marginata Valenciennes, Hist. Nat. Poiss., vol. 10, p. 402, 1835 (on Krusenstern, pl. 60, fig. 1) (type locality, Japan).

— Richardson, Ichth. China and Japan, p. 277, 1846 (reference). — Günther, Cat. Fish. Brit. Mus., vol. 2, p. 489, 1861 (reference).

[illegible] Nat. Tydy. Ned. Ind., vol. 6, p. 415, 1854 (type locality, Nagasaki); Cepola mesoprion Bleeker, Verh. Batavia. Genoot. (Jap.), vol. 26, p. 109, 1854 (type locality, Nagasaki).

— Günther, Cat. Fish. Brit. Mus., vol. 3, p. 488, 1861 (copied).

Acanthocepola mesoprion Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, p. 303, 1902 (Gilbert specimen).

paler ground-color and more contrasted in shading and with darker blotches or streaks, often a darker transverse band at caudal base. Pectoral paler or uniform brownish. Ventral pale, variegated with brown.

East Indian region. A broadly oblong species, well figured by Day. Of it known color-design, which with age the spots appear as dark ringed with darker. Often several oblique dark bands or lines are formed along the cheek, one from the end of the maxillary up to the eye. Two preserved examples quite dark and the usual light spots darker than the ground color.

Cepola kaurusensterni (part) Schlegel, Fauna Japonica, Poiss., pts. 7-9, pl. 71, fig. 1, 1845.

→ Hyström, Bih. Kon. Svenska. Vet. Akad. Handl., Stockholm, vol. 13, af. 4, no. 4, p. 39, 1887 (Nagasaki).

Cepola krusensternii

in front of hind preopercle edge and ends above front of lower limb; 2 spots near preopercle angle; opercle with indistinct lines and 1 round spot. Over entire side and caudal peduncle above level of pectoral base numerous, rounded and elliptical bronze spots, slightly less than pupil. Broad cloth about 1 ½ times eye below hind end of dorsal. Iris olive and golden. Dorsals dark olive with plumbeous shades on soft rays. Anal like dorsal, spinous fin with orange shades, soft fin more plumbeous. Caudal dusky plumbeous, edge darker and entire fin thickly spotted with small round dusky spots ⅓-diameter of pupil. Pectoral hyaline dusky. Ventral dusky, first spine with yellowish blotches.

Cepola indica Day, Fishes of India, Suppl., p. 796, 1888 (type locality, Madras); Fauna of British India, vol. 2, p. 329, 1889 (copied).

depth 1 3 ; head 1 2. Snout 5 1/2 in head from snout tip; eye 2 3/4, greatly exceeds snout or interorbital; maxillary reaches 3/5 in eye, expansion 1/2, length 2 in head from snout tip; teeth long, recurved, canine-like, wide set row in each jaw; interorbital 4 1/2, level; preopercle edge with 6 short denticles about angle.

Scales 300 in lateral series, covers sides of head and body entirely with top of head, maxillary and lower jaw naked. No lateral line.

D. 104, fin height 2 in total head length, origin midway over opercle; A. 105, origin at last third in depressed

pectoral, fin height 2, caudal rays 9, length 7 in. rest of fish, ends in long point posteriorly; pectoral 1 3/4 in total head length; ventral 2, rays I, 4. Velt nearly opposite middle of depressed pectoral.

Dull silvery in alcohol, uniform. Anall with broad brown margin. Length 330 mm.

(Jordan and Evermann.)

Formosa, Japan.

(dark or blackish blotch about size of eye on dorsal medially between eighth to tenth rays.)